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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,774	06/01/2001	Roy Richardson	1410-00	3000
7590	07/12/2006			EXAMINER CHORBAJI, MONZER R
IP Department Schnader Harrison Segal & Lewis 36th Floor 1600 Market Street Philadelphia, PA 19103			ART UNIT 1744	PAPER NUMBER
DATE MAILED: 07/12/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/871,774	RICHARDSON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	MONZER R. CHORBAJI	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 April 2006.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-11,15-26,28-39,43-55,57-63,65 and 66 is/are rejected.
- 7) Claim(s) 12-14,27,40-42,56 and 64 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 July 2005 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                     | Paper No(s)/Mail Date. _____ .  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

## DETAILED ACTION

**This final action is in response to the amendment received on 04/24/2006**

### ***Claim Objections***

1. Claim 8 is objected to because of the following informalities: In amendment dated 04/24/2006, claim 8 is labeled as amended claim. However, claim 8 is an original claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 20, 30, 46 and 58 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In amended claim 1, applicant added the feature "by the weight of the canopy", yet the disclosure teaches that the weight of the truss (lower perimeter is the lower truss) is pushing against the gasket not the weight of the canopy. See page 10, numbered lines 7-16 of the specification.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1, 5-7, 11, 16-18, 30, 32-35, 39 and 43-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Langhart (U.S.P.N. 5,641,463).

Regarding claims 1 and 30, Langhart discloses an apparatus (figure 1) for fumigating produce that includes the following: a canopy (must inherently be impermeable to flowable materials in order for successful fumigation to occur), an upper perimeter (figure 1:unlabeled upper frame), a lower perimeter (is equivalent to the bottom of the tarp, which is connected to the perimeter hose. The bottom of the tarp is capable of sustaining the lower portion of the canopy in a hanging down position in order to maintain a defined treatment area within the assembly for fumigating goods. This position is sustained in combination with the bottom of the tarp being connected to perimeter hose), the lower perimeter is movable with respect to the upper perimeter (figure 1:unlabeled upper frame and col.4, lines 61-67 and col.5, lines 1-5), a perimeter support (figure 1:48) and a gasket (figure 6:62. Page 10 of the specification teaches that

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a gasket can be a hollow rubber plastic tubing) that is deformed against the surface to seal the chamber (col.6, lines 26-35) where the weight of Langhart canopy is capable of compressing the gasket. The inherent weight of the water inside the hose causes deformation of the gasket against the floor) such that the gasket is capable of being compressed by the lower perimeter (gasket 62 and bottom of the tarp are connected such that the inherent weight of the tarp is capable of compressing gasket 62 against the floor).

Regarding claims 5-9, 11, 15-18, 32-37, 39 and 43-44, Langhart discloses the following: perimeter support includes a cable (34), means for moving the lower perimeter with respect to the upper perimeter (22), a collapsible duct in communication with the chamber (62), vent fan mountable on and extends through the canopy (col.7, lines 1-6), rubber tubing (col.6, lines 32-33), a perforated conduit (78), an intermediate support that includes a wire mesh (figure 1:unlabeled truss structure in the top of the device) for supporting both the upper and lower perimeters and the lower perimeter is compressed toward the upper perimeter (col.6, lines 26-35).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 19, 45, 58-63 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langhart (U.S.P.N. 5,641,463).

Regarding claim 58, Langhart discloses a method (for example, col.5, lines 27-67 and col.6, lines 1-67) for fumigating produce including the following: placing goods on a surface (inherent step in order to fumigate goods), a canopy (must inherently be impermeable to flowable materials in order for successful fumigation to occur), an upper perimeter (figure 1:unlabeled upper frame), a lower perimeter (is equivalent to the bottom of the tarp, which is connected to the perimeter hose. The bottom of the tarp is

capable of sustaining the lower portion of the canopy in a hanging down position in order to maintain a defined treatment area within the assembly for fumigating goods. This position is sustained in combination with the bottom of the tarp being connected to perimeter hose), the lower perimeter is movable with respect to the upper perimeter (figure 1:unlabeled upper frame and col.4, lines 61-67 and col.5, lines 1-5), a perimeter support (figure 1:48), and a gasket (figure 6:62. Page 10 of the specification teaches that a gasket can be a hollow rubber plastic tubing) that is deformed against the surface to seal the chamber (col.6, lines 26-35) where the weight of Langhart canopy is capable of compressing the gasket. The inherent weight of the water inside the hose causes deformation of the gasket against the floor) such that the gasket is capable of being compressed by the lower perimeter (gasket 62 and bottom of the tarp are connected such that the inherent weight of the tarp is capable of compressing gasket 62 against the floor), lowering the gasket (inherent step in order to fumigate goods), fumigating the produce (inherent step in order to fumigate goods) and venting the chamber (col.7, lines 1-6). In addition, the Langhart reference teaches introducing a first flowable material (fumigant) and venting the first flowable material from the chamber (7, lines 1-6) such that a first negative pressure is created (inherent result of removing the fumigant from within the chamber). The Langhart reference goes on to teach that it is known in the art of fumigation (col.7, lines 4-5) to introduce fresh air (equivalent to a second flowable material) into the chamber. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Langhart method by including a fresh air injection step as a standard in the art of fumigation in order to

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shorten the time period dock personnel have to wait to enter the tent area safely (col.7, lines 1-9).

Regarding claims 19 and 45, Langhart teaches that it is known in the art of fumigation to place flexible vinyl tubes on top of a tarp (columns 1-2). Further, Langhart teaches a lower perimeter (is equivalent to the unlabeled bottom of the tarp in figure 1), which is connected to the perimeter hose 62, i.e., gasket resulting in the canopy being positioned between the lower perimeter and the gasket. As a result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Langhart apparatus by further adding flexible vinyl tubes to the lower part of the tarp as is taught to be standard in the art of fumigation for better sealing of the chamber.

Regarding claims 59-63, Langhart teaches the following: raising the apparatus to expose the goods for removal (col.4, lines 61-64), first flowable material is methyl bromide, circulating the fumigant after injecting (figure 6:56), the lower perimeter is compressed toward the upper perimeter (62) and lowering the lower perimeter away from the upper perimeter to form the chamber and second flowable material is supplied to the chamber through a cooling conduit (col.7, lines 5-6).

Regarding claim 66, Langhart teaches that it is known in the art of fumigation to introduce fresh air into the chamber (col.7, lines 5-6) after removing (creating a negative pressure) the fumigant. As a result, it would have been to one having ordinary skill in the art at the time the invention was made to modify Langhart method by including additional removal and aeration steps in order to shorten the time period dock personnel have to wait to enter the tent area safely (col.7, lines 1-9).

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11. Claims 2-4 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langhart (U.S.P.N. 5,641,463) in view of Hemmelsbach (U.S.P.N. 3,925,942).

Regarding claims 2 and 31, Langhart teaches that the upper perimeter (figure 1:unlabeled upper structure) includes an upper truss (figure 1:unlabeled truss structure) and the perimeter support (48) includes an upper support chain (figure 1:unlabeled bar structure); however, Langhart fails to teach that the lower perimeter includes a lower truss. Hemmelsbach, which is in the art of designing truss structures, discloses the use of a lower truss (16). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Langhart apparatus by further adding a lower truss to the lower perimeter as taught by Hemmelsbach resulting in a considerable savings in materials and assembly time (col.2, lines 65-68).

Regarding claims 3-4, Langhart teaches the upper truss includes a chain guide (46) and a stop block is connected to the lower support chain (54).

12. Claims 10 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langhart (U.S.P.N. 5,641,463) in view of Hubert et al (U.S.P.N. 4,956,042).

Regarding claims 10 and 38, Langhart fails to teach that the gasket includes a solvent dispersed synthetic rubber resin adhesive; however, Hubert, which is in the art of treating pipes, teaches the use of Armaflex (i.e., solvent dispersed synthetic rubber resin adhesive). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Langhart gasket by including the compound Armaflex as taught by Hubert since such material have the advantage of not becoming brittle (col.5, lines 50-55).

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13. Claims 20-26 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langhart (U.S.P.N. 5,641,463) in view of Lomaz (U.S.P.N. 3,226,144).

Regarding claim 20, Langhart discloses a method (for example, col.5, lines 27-67 and col.6, lines 1-67) for fumigating produce including the following: placing goods on a surface (inherent step in order to fumigate goods), a canopy (must inherently be impermeable to flowable materials in order for successful fumigation to occur), an upper perimeter (figure 1:unlabeled upper frame), a lower perimeter (is equivalent to the bottom of the tarp, which is connected to the perimeter hose. The bottom of the tarp is capable of sustaining the lower portion of the canopy in a hanging down position in order to maintain a defined treatment area within the assembly for fumigating goods. This position is sustained in combination with the bottom of the tarp being connected to perimeter hose), the lower perimeter is movable with respect to the upper perimeter (figure 1:unlabeled upper frame and col.4, lines 61-67 and col.5, lines 1-5), a perimeter support (figure 1:48), and a gasket (figure 6:62. Page 10 of the specification teaches that a gasket can be a hollow rubber plastic tubing) that is deformed against the surface to seal the chamber (col.6, lines 26-35). The inherent weight of the water inside the hose causes deformation of the gasket against the floor) such that the gasket is capable of being compressed by the lower perimeter (gasket 62 and bottom of the tarp are connected such that the inherent weight of the tarp is capable of compressing gasket 62 against the floor), lowering the gasket (inherent step in order to fumigate goods),

fumigating the produce (inherent step in order to fumigate goods) and venting the chamber (col.7, lines 1-6).

With regard to the newly added feature "by the weight of the canopy" to the step of causing the gasket to deform, Langhart fails to explicitly teach this limitation; however, Lomaz teaches placing a rubber weather-strip on the bottom (lower perimeter) of a garage door (col.2, lines 22-25). Therefore, it would have been obvious to move Langhart gasket from its bottom perimeter position as shown in figure 4 by placing it in communication with and beneath lower portion of the canopy so that weight of canopy forcibly flatten the gasket as taught by Lomaz (col.2, lines 27-31 and col.3, lines 29-56) resulting in achieving better sealing between bottom of canopy and the floor that leads to less waste of the fumigant.

Regarding 21-26 and 28-29, Langhart discloses the following: a perforated conduit (78), an intermediate support that includes a wire mesh (figure 1:unlabeled truss structure in the top of the device) for supporting both the upper and lower perimeters, raising the apparatus to expose the goods (col.4, lines 61-64), injecting methyl bromide, circulating the flowable material for a predetermined time within the chamber (figure 6:56), the lower perimeter is compressed toward the upper perimeter (col.6, lines 26-35) and lowering the lower perimeter away from the upper perimeter to form the chamber (figure 1:12).

14. Claims 46, 48-49, 51-55, 57 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langhart (U.S.P.N. 5,641,463) in view of Miyasak (JP 02-072820).

Regarding claims 46 and 65, Langhart discloses an apparatus (figure 6) for fumigating goods including the following: a canopy (must inherently be impermeable to flowable materials in order for successful fumigation to occur), an upper perimeter (figure 1:upper bar), a lower perimeter (is equivalent to the bottom of the tarp, which is connected to the perimeter hose), the lower perimeter is movable with respect to the upper perimeter, a perimeter support (48), and a gasket (62. Page 10 of the specification teaches that a gasket can be a hollow rubber plastic tubing) that is deformable (col.6, lines 31-36, gasket 62 and bottom of the tarp are connected such that the inherent weight of the tarp is capable of compressing gasket 62 against the floor) where the weight of Langhart canopy is capable of compressing the gasket, a fumigation conduit (figure 6:66), a perforated vent (figure 6:76) and means for changing a pressure with the chamber (figure 6:exhaust fans). Langhart fails to teach supplying chilled air to the chamber. Miyasak, which is in the art of fumigating fruits and vegetables, teaches supplying the chamber with chilled air (purpose, lines 4-5). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Langhart apparatus by further supplying chilled air to the chamber as disclosed by Miyasak in order prevent rapid ripening of the fruits by cooling them (constitution, lines 12-13).

The features of claims 48-49, 51-55 and 57 have previously been addressed above with regard to claims 5-9, 11, 15-18, 21-26, 28-29, 32-37, 39 and 43-44.

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15. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langhart (U.S.P.N. 5,641,463) in view of Miyasak (JP 02-072820) as applied to claim 46 and further in view of Hemmelsbach (U.S.P.N. 3,925,942).

Both Langhart and Miyasak fail to teach that the lower perimeter includes a lower truss. Hemmelsbach, which is in the art of designing truss structures, discloses the use of a lower truss (16). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Langhart apparatus by further adding a lower truss to the lower perimeter as taught by Hemmelsbach resulting in a considerable savings in materials and assembly time (col.2, lines 65-68).

16. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langhart (U.S.P.N. 5,641,463) in view of Miyasak (JP 02-072820) as applied to claim 46 and further in view of Hubert et al (U.S.P.N. 4,956,042).

Both Langhart and Miyasak fail to teach that the gasket includes a solvent dispersed synthetic rubber resin adhesive. Hubert, which is in the art of treating pipes, teaches the use of Armaflex (i.e., solvent dispersed synthetic rubber resin adhesive). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Langhart gasket by including the compound Armaflex as taught by Hubert since such material have the advantage of not becoming brittle (col.5, lines 50-55).

17. Claims 1, 5-9, 11, 15-26, 28-30, 32-37, 39, 43-45, 58-63 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langhart (U.S.P.N. 5,641,463) in view of Redden (U.S.P.N. 3,682,225).

Regarding claims 1, 20, 30 and 58, Langhart discloses a method (for example, columns 5-6) and an apparatus (figure 6) for fumigating produce including the following: placing goods on a surface (inherent step in order to fumigate goods), a canopy (must inherently be impermeable to flowable materials in order for successful fumigation to occur), an upper perimeter (62), a lower perimeter (is equivalent to the bottom of the tarp, which is connected to the perimeter hose. The bottom of the tarp is capable of sustaining the lower portion of the canopy in a hanging down position in order to maintain a defined treatment area within the assembly for fumigating goods. This position is sustained in combination with the bottom of the tarp being connected to perimeter hose), the lower perimeter is movable with respect to the upper perimeter (unlabeled upper bars), a perimeter support (48), fumigating the produce (inherent step in order to fumigate goods), venting the chamber (inherent step since fumigants are toxic to human, col.3, lines 45-49), lowering the apparatus (inherent step in order to fumigate goods), introducing a first flowable material (fumigant) and venting the first flowable material from the chamber (col.9, lines 51-53) such that a first negative pressure is created (inherent result of removing the fumigant from within the chamber). The Langhart reference goes on to teach that it is known in the art of fumigation (col.6, lines 37-39) to introduce fresh air (equivalent to a second flowable material) into the chamber. Langhart reference fails to teach the use of a gasket. Redden, which is in the art of designing closures for structures, teaches the use of gaskets (col.4, lines 56-57) in combination with doors such that placing gasket around the upper and lower portions of Langhart canopy as disclosed by Redden would result in having the weight of the

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canopy compressing the gasket against the floor. Therefore, even if the hose of Langhart is not a "gasket" because it is used to seal the device, it would have been obvious to one of ordinary skill in the art to substitute well known and conventional gasket means as evidenced by Redden (col.4, line 57).

Regarding claims 5-9, 11, 15-18, 21-26, 28-29, 32-37, 39 and 43-44, Langhart discloses the following: perimeter support includes a cable (213), means for moving the lower perimeter with respect to the upper perimeter (206), a collapsible duct in communication with the chamber (col.9, lines 51-52 and lines 65-67), vent fan mountable on and extends through the canopy (col.9, lines 51-52 and lines 65-67), rubber tubing (col.3, lines 35-37), a perforated conduit (col.9, lines 65-67 and col.1, lines 32-35), an intermediate support that includes a wire mesh (frame that makes 301) for supporting both the upper and lower perimeters (302), raising the apparatus to expose the goods (col.7, lines 60-64), injecting methyl bromide (col.1, lines 21-22), circulating the flowable material for a predetermined time within the chamber (col.9, lines 62-63), the lower perimeter is compressed toward the upper perimeter (206) and lowering the lower perimeter away from the upper perimeter to form the chamber (206 and col.7, lines 60-61).

Regarding claims 19 and 45, Langhart teaches that it is known in the art of fumigation to place flexible vinyl tubes on top of a tarp (col.1, lines 40-45 and figure 4). Further, Langhart teaches a lower perimeter (is equivalent to the unlabeled bottom of the tarp 304), which is connected to the perimeter hose 305. However, Langhart fails to teach the use of a gasket. Redden teaches the use of gaskets (col.4, lines 56-57) in

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combination with doors. Thus, even if the hose of Langhart is not a "gasket" because it is used to seal the device, it would have been obvious to one of ordinary skill in the art to substitute well known and conventional gasket means as evidenced by Redden (col.4, line 57).

Regarding claims 59-63, Langhart teaches the following: raising the apparatus to expose the goods for removal (col.7, lines 60-64), first flowable material is methyl bromide (col.1, lines 21-22), circulating the fumigant after injecting (col.9, lines 62-63), the lower perimeter is compressed toward the upper perimeter (206) and lowering the lower perimeter away from the upper perimeter to form the chamber (206 and col.7, lines 60-61) and second flowable material is supplied to the chamber through a cooling conduit (col.6, lines 37-39).

Regarding claim 66, Langhart teaches that it is known in the art of fumigation to introduce fresh air into the chamber (col.6, lines 37-39) after removing (creating a negative pressure) the fumigant (col.6, lines 33-34). As a result, it would have been to one having ordinary skill in the art at the time the invention was made to modify Langhart method by including additional removal and aeration steps in order to shorten the time period dock personnel have to wait to enter the tent area safely (col.6, lines 39-41).

**18.** Claims 2-4 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langhart (U.S.P.N. 5,641,463) in view of Redden (U.S.P.N. 3,682,225) as applied to claims 1, 30 and further in view of Hemmelsbach (U.S.P.N. 3,925,942).

Regarding claims 2 and 31, Langhart teaches that the upper perimeter (301) includes an upper truss (truss structure of 301) and the perimeter support (209) includes an upper support chain (213); however, Langhart and Redden both fail to teach that the lower perimeter includes a lower truss. Hemmelsbach discloses the use of a lower truss (16). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Langhart apparatus by adding a lower truss to the lower perimeter as taught by Hemmelsbach resulting in a considerable savings in materials and assembly time (col.2, lines 65-68).

Regarding claims 3-4, Langhart teaches the upper truss includes a chain guide (203) and a stop block is connected to the lower support chain (206 and 221).

**19.** Claims 10 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langhart (U.S.P.N. 5,641,463) in view of Redden (U.S.P.N. 3,682,225) as applied to claims 1, 30 and further in view of Hubert et al (U.S.P.N. 4,956,042).

Regarding claims 10 and 38, Langhart fails to teach the use of a gasket and Redden teaches the use of gaskets in combination with doors but fails to teach that gaskets include a solvent dispersed synthetic rubber resin adhesive. Hubert teaches the use of Armaflex (i.e., solvent dispersed synthetic rubber resin adhesive). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to Redden gasket by including the compound Armaflex as taught by Hubert since such material have the advantage of not becoming brittle (col.5, lines 50-55).

20. Claims 46, 48-49, 51-55, 57 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langhart (U.S.P.N. 5,641,463) in view of Redden (U.S.P.N. 3,682,225) and further in view of Miyasak (JP 02-072820).

Regarding claims 46 and 65, Langhart discloses an apparatus (figure 7) for fumigating goods including the following: a canopy (must inherently be impermeable to flowable materials in order for successful fumigation to occur), an upper perimeter (301), a lower perimeter (is equivalent to the bottom of the tarp, which is connected to the perimeter hose), the lower perimeter is movable with respect to the upper perimeter (206 and 301), a perimeter support (209), a fumigation conduit (col.9, lines 65-67 and col.1, lines 32-35), a perforated vent (col.9, lines 51-53) and means for changing a pressure with the chamber (col.9, line 52). Langhart fails to teach using gaskets and supplying chilled air to the chamber. Redden teaches the use of gaskets (col.4, lines 56-57) in combination with doors. Thus, even if the hose of the Langhart is not a "gasket" because it is used to seal the device, it would have been obvious to one of ordinary skill in the art to substitute well known and conventional gasket means as evidenced by Redden (col.4, line 57).

Both Langhart and Redden fail to teach supplying chilled air to the chamber. Miyasak teaches supplying the chamber with chilled air (purpose, lines 4-5). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Langhart apparatus by further supplying chilled air to the chamber as disclosed by Miyasak in order prevent rapid ripening of the fruits by cooling them (constitution, lines 12-13).

The features of claims 48-49, 51-55 and 57 have previously been addressed above with regard to claims 5-9, 11, 15-18, 21-26, 28-29, 32-37, 39 and 43-44.

**21.** Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langhart (U.S.P.N. 5,641,463) in view of Redden (U.S.P.N. 3,682,225), Miyasak (JP 02-072820) as applied to claim 46 and further in view of Hemmelsbach (U.S.P.N. 3,925,942).

Langhart, Redden and Miyasak fail to teach that the lower perimeter includes a lower truss. Hemmelsbach discloses the use of a lower truss (16). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Langhart apparatus by adding a lower truss to the lower perimeter as taught by Hemmelsbach resulting in a considerable savings in materials and assembly time (col.2, lines 65-68).

**22.** Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langhart (U.S.P.N. 5,641,463) in view of Redden (U.S.P.N. 3,682,225), Miyasak (JP 02-072820) as applied to claim 46 and further in view of Hubert et al (U.S.P.N. 4,956,042).

Langhart and Miyasak fail to teach the use of a gasket and Redden teaches using gaskets in combination with doors, but fails to teach that gaskets include a solvent dispersed synthetic rubber resin adhesive. Hubert teaches the use of Armaflex (i.e., solvent dispersed synthetic rubber resin adhesive). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Redden gasket by including the compound Armaflex as taught by Hubert since such material have the advantage of not becoming brittle (col.5, lines 50-55).

***Allowable Subject Matter***

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23. Claims 12-14, 27, 40-42, 56 and 64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

24. Applicant's arguments filed on 04/24/2006 have been fully considered but they are not persuasive.

On page 16 of the Remarks section, applicant argues that the feature of the gasket being compressed by the weight of the canopy is not taught by any reference and that the sagging of the canopy prevents the formation of an even distribution of the weight of the canopy and the perimeter hose 62 and that the cooling conditions within the canopy would freeze the water filled perimeter hose 62 thereby preventing the formation of a reliable flexible seal on the uneven surfaces of a typical warehouse. The examiner disagrees. Langhart canopy is capable of being overextended on top of hose 62 so that the inherent weight of the canopy will compress the flexible hose. With regard to the sagging of the canopy argument, depending on the use of the canopy, the rings and the wires supporting Langhart canopy are capable of preventing the sagging of the canopy. With regard to freezing the water filled hose of Langhart argument, this constitutes intended use and does not limit the scope of the instant claims.

The newly applied reference, Lomaz, teaches placing rubber-sealing element on the bottom of a garage door so that the weight of the door presses on the rubber element. Clearly, one of ordinary skill in the art upon reading Lomaz would be motivated to move Langhart gasket from its bottom perimeter position as shown in figure 4 by

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placing it in communication with and beneath lower portion of the canopy so that weight of canopy forcibly flatten the gasket (Lomaz, col.2, lines 27-31 and col.3, lines 29-56) resulting in achieving better sealing between bottom of canopy and the floor that leads to less waste of the fumigant.

***Conclusion***

25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

26. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R. CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 9:00-5:30.

28. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GLADYS J. CORCORAN can be reached on (571) 272-1214. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

29. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Monzer R. Chorbaji *MRC*  
07/10/2006



GLADYS P. CORCORAN  
SUPERVISORY PATENT EXAMINER